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C NOTIFICATIONS

# **METHOD AND SYSTEM FOR TRANSMITTING NOTIFICATIONS TO USERS OF A LOGISTIC SYSTEM**

**Description:**

The invention relates to a method and a system for transmitting notifications to users of a logistic system.

In order to operate a logistic system with a plurality of users and one or more logistics providers, certain information has to be transmitted to the subscribers of the system. The transmission of information is hereinafter referred to as notification. Such notifications can take place via one or more different types of communication.

Notifications are sent on the basis of events that have occurred within the logistic system. In this context, an event in the logistic system can trigger no notification or else one or more notifications. The allocation of events of the logistic system to notifications can be carried out within a notification component as a function of a business logic.

Notifications can be transmitted via different types of communication. Here, the type of communication is the manner in which a notification is delivered. As a matter of principle, a notification with the same information content can be delivered via several types of communication.

A logistic system with different notifications and types of communication is needed, especially when a parcel compartment system for registered users is operated by a transport and delivery company. Such parcel compartment systems or automatic parcel delivery machines are operated, for example, by a postal service provider for registered users for whom a deliverer deposits parcels or other shipments into a compartment of the system. The user then has to be notified that a parcel has been deposited for him. Moreover, the logistic system has to be informed, for example, as to whether a user has picked up his parcel. Furthermore, information on the registration of new clients, client data, pick-up deadlines and COD charges has to be exchanged within the logistic system.

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Within a logistic system for parcel compartment systems, notifications are typically sent by e-mail or SMS. The generation, administration and sending of the notifications preferably involves various databases and process sequences.

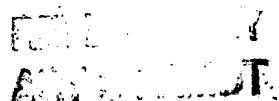
The use of logistic systems is known for the distribution of goods. The goods to be distributed can be all kinds of products, materials and objects. Logistic systems serve to organize and monitor the distribution of the goods in question, for example, between warehouses, intermediate storage facilities, containers, vehicles, senders and recipients via different routes of transportation. The functions of logistic systems are advantageously adapted to the requirements in such a way that the distribution of the goods can be optimized, for example, in terms of routes of transportation, capacity utilization, storage times and data transmission.

The applicant makes use especially of logistic systems for distributing letters and goods (parcels, packages), transportation boxes, pallets and containers. The appertaining logistic systems preferably serve to distribute shipments between a sender and a recipient, whereby, for example, criteria such as transportation speed, utilization of warehouses and vehicles and the transmission of shipment data are of importance.

German Utility Model 201 03 564 U1, for example, discloses a system for delivering and receiving shipments which seems to be particularly suitable for e-commerce. The system comprises several automatic delivery machines (ADM) in which shipments are deposited and picked up. The system also comprises a LAMIS server-computer program for handling the operations of the system. The client is informed, for example, via types of communication such as e-mail, about shipments deposited for him at the ADM.

The objective of the invention is to provide a method for transmitting notifications to users of a logistic system which allows the most flexible response possible to different events within the system and the generation of user-specific notifications.

According to the invention, this objective is achieved in that, in response to different events within the logistic system, different modules with associated functions are called up in each case, whereby the modules generate notification orders that are transmitted to a central



sending component which, on the basis of the orders, generates appropriate notifications and sends them to the users.

The objective is also achieved by a system for carrying out the method.

The modules with the associated functions for responding to events within the logistic system form an external interface via which different Use Cases are mapped. In an especially preferred embodiment of the invention, the notification orders generated by the modules are only transmitted directly to the sending component in special cases, while as a rule, they are written into a communication request queue. A queue reader reads the orders from the communication request queue in a timer-controlled manner and transmits them to the central sending component. Prior to this, the status of the notification is checked. A status change can be made, for example, in that a parcel has been picked up in the meantime or the person picking it up has changed.

According to one aspect of the invention, the sending component generates the notifications on the basis of data from one or more databases. These databases are advantageously at least one client database, a parcel database, an automatic parcel delivery machine database and a document database. The client database contains, for example, data about registered clients of the logistic system, whereby each client receives an ID for purposes of identification. This data can contain addresses, phone numbers or other information. The parcel database contains information on the parcels that are transported within the system, whereby the parcels are likewise identified by means of an ID. The automatic parcel delivery machine database contains information about the parcel compartment systems that are used within the system. This likewise involves IDs.

The document database contains templates for generating user-specific notifications. For this purpose, it preferably contains templates for e-mail and SMS notifications. The templates have placeholders into which the user-specific data from the databases is inserted.

The sending component transmits the generated notifications to a gateway so that they can be sent to the users.

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